

ABSTRACT

The present invention provides a method for manufacturing a monocrystalline film and a device formed by the above method, and according to the method mentioned above, lift-off of the monocrystalline silicon film is preferably performed and a high-purity monocrystalline silicon film can be obtained. A monocrystalline silicon substrate (template Si substrate) 201 is prepared, and on this monocrystalline silicon substrate 201, an epitaxial sacrificial layer 202 is formed. Subsequently, on this sacrificial layer 202, a monocrystalline silicon thin film 203 is rapidly epitaxially-grown using a RVD method, followed by etching of the sacrificial layer 202, whereby a monocrystalline silicon thin film 204 used as a photovoltaic layer of solar cells is formed